Experiment	Figures	Reference	Strain number	Strain	Plasmid-gene	Comments
NepR start codon experiments	S2	Santos et al., 2001	FC1101	*E. coli* Top10	pPR9TT	Empty vector (AmpR, ChloR).
		This work	FC2207	*E. coli* Top10	pPR9TT-*nepRFL*	P*nepR::lacZ* translational fusion, starting at start codon 1.
		This work	FC2208	CB15	pPR9TT-*nepRFL*	
		This work	FC2209	*E. coli* Top10	pPR9TT-*nepRSC2*	P*nepR::lacZ* translational fusion, starting at start codon 2.
		This work	FC2210	CB15	pPR9TT-*nepRSC2*	
		This work	FC2211	*E. coli* Top10	pPR9TT-*nepRSC3*	P*nepR::lacZ* translational fusion, starting at start codon 3.
		This work	FC2212	CB15	pPR9TT-*nepRSC3*	
		This work	FC2213	*E. coli* Top10	pPR9TT-*nepR(1)23*	P*nepR::lacZ* translational fusion, start codons 2 and 3 mutated to Ala.
		This work	FC2214	CB15	pPR9TT-*nepR(1)23*	
		This work	FC2215	*E. coli* Top10	pPR9TT-*nepR1(2)3*	P*nepR::lacZ* translational fusion, start codons 1 and 3 mutated to Ala.
		This work	FC2216	CB15	pPR9TT-*nepR1(2)3*	
		This work	FC2217	*E. coli* Top10	pPR9TT-*nepR12(3)*	P*nepR::lacZ* translational fusion, start codons 1 and 2 mutated to Ala.
		This work	FC2218	CB15	pPR9TT-*nepR12(3)*	
		This work	FC2366	E. coli Top10	pPR9TT-*nepR123*	P*nepR::lacZ* translational fusion, start codons 1, 2 and 3 mutated to Ala.
		This work	FC2367	CB15	pPR9TT-*nepR123*	
Bacterial Two-Hybrid experiments	2 and S3	Karimova et al., 1998	FC253	*E. coli* Top10	pUT18c	Empty vector control for BTH assay (AmpR).
		Karimova et al., 1998	FC254	*E. coli* Top10	pUT18c-*zip*	Leucine zipper positive control for BTH assay.
		This work	FC2221	*E. coli* Top10	pUT18c-*nepRFL* (M1-E68)	
		This work	FC2222	*E. coli* Top10	pUT18c-*nepRsc2* (M8-E68)	
		This work	FC2223	*E. coli* Top10	pUT18c-*nepRsc3* (M14-E68)	
		This work	FC2224	*E. coli* Top10	pUT18c-*nepR*ΔFR1 (Q31-E68)	Used to express the different T18-NepR alleles for BTH assay.
		This work	FC2225	*E. coli* Top10	pUT18c-*nepR*ΔFR2 (M1-E62)	
		This work	FC2238	*E. coli* Top10	pUT18c-*nepRSV* (Q31-E62)	
		This work	FC2312	*E. coli* Top10	pUT18c-*nepR*poly-A	
		This work	FC2339	*E. coli* Top10	pUT18c-linker-*nepR*	
		This work	FC2340	*E. coli* Top10	pUT18c-*phyR*	Used to express the different NepR partners (T18 tagged) for BTH assay.
		This work	FC2341	*E. coli* Top10	pUT18c-*phyR-SL*	
		This work	FC2342	*E. coli* Top10	pUT18c-*sigT*	
		Karimova et al., 1998	FC255	*E. coli* Top10	pKT25	Empty vector control for BTH (KanR).
		Karimova et al., 1998	FC256	*E. coli* Top10	pKT25-*zip*	Leucine zipper positive control for BTH assay.
		This work	FC2232	*E. coli* Top10	pKT25-*phyR*	
		This work	FC2313	*E. coli* Top10	pKT25-*phyRD192A* (allele amplified from strain FC1211 (Herrou et al. 2010)	Used to express the different NepR partners (T25 tagged) for BTH assay.
		This work	FC2233	*E. coli* Top10	pKT25-*phyR-SL*	
		This work	FC2234	*E. coli* Top10	pKT25-*sigT*	
		This work	FC2343	*E. coli* Top10	pKT25-*nepRFL*	Used to express the different T25-NepR alleles for BTH assay.
		This work	FC2344	*E. coli* Top10	pKT25-*nepRSV*	
β-galactosidase activities - *Caulobacter* Stress assays	3 and S4	M.R.K. Alley	FC55	*E. coli* Top10	pNPTS138	Empty vector (KanR).
		This work	FC2235	*E. coli* Top10	pNPTS138-Δ*nepRsigT*	Used for allelic replacement in *Caulobacter*.
		Herrou et al., 2012	FC634	*E. coli* Top10	pRKLac290-*PsigU*	P*sigU::lacZ* translational fusion (TetR).
		Thanbichler et al., 2007	FC414	*E. coli* Top10	pMT464	Empty vector (KanR, Xylose inducible).
		A. Fiebig	FC2251	*E. coli* Top10	pMT464-*sigT*	Used for overexpression of σT in *Caulobacter*.
		Thanbichler et al., 2007	MTCS4420	*E. coli* Top10	pMT806	Empty vector (CamR, Vanillate inducible).
		This work	FC2236	*E. coli* Top10	pMT806-*nepRFL*	Used for overexpression of NepR in *Caulobacter*.
		This work	FC2237	*E. coli* Top10	pMT806-*nepRSV*	
		This work	FC2219	*E. coli* Top10	pMT806-HA-*nepRFL*	Used for overexpression of N-terminal HA tagged NepR in *Caulobacter*.
		This work	FC2230	*E. coli* Top10	pMT806-HA-*nepRSV*	
		This work	FC2252	*E. coli* Top10	pMT806-*nepRFL*-HA	Used for overexpression of C-terminal HA tagged NepR in *Caulobacter*.
		This work	FC2254	*E. coli* Top10	pMT806-*nepRSV*-HA	
		Poindexter, 1964	FC19	CB15	-	Wild type *Caulobacter*.
		This work	FC2239	CB15 ΔnepRsigT	-	CB15 deleted for *nepRsigT*.
		This work	FC2240	CB15	pRKLac290-*PsigU* pMT464 pMT806	Wild-type strain transformed with empty vectors. Used for sucrose stress assay.
		This work	FC2241	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464 pMT806	CB15 deleted for *nepRsigT*. Used for sucrose stress assay.
		This work	FC2242	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806	CB15 deleted for *nepRsigT*. Overexpressing σT. Used for sucrose stress assay.
		This work	FC2243	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-*nepRFL*	CB15 deleted for *nepRsigT*. Overexpressing σT and NepR. Used for sucrose stress assay.
		This work	FC2244	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-*nepRSV*	
		This work	FC2220	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-HA-*nepRFL*	CB15 deleted for *nepRsigT*. Overexpressing σT and N-terminal HA tagged NepRs. Used for dot-blot.
		This work	FC2231	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-HA-*nepRSv*	
		This work	FC2253	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-*nepRFL*-HA	CB15 deleted for *nepRsigT*. Overexpressing σT and C-terminal HA tagged NepRs. Used for dot-blot.
		This work	FC2255	CB15 ΔnepRsigT	pRKLac290-*PsigU* pMT464-*sigT* pMT806-*nepRSV*-HA	
σT/NepR interaction experiments	4 and S6	Life Technologies	FC929	E. coli Top10	-	Cloning strain.
		Novagen	FC803	E. coli Rosetta (DE3) pLysS	-	Expression strain.
		This work	FC274	E. coli Top10	pETDuet-1	Empty plasmid (AmpR).
		This work	FC1097	E. coli Top10	pETDuet-*sigT*	Used to express His-σT.
		This work	FC2363	*E. coli* Rosetta (DE3) pLysS	pETDuet-*sigT*	
		This work	FC1104	E. coli Top10	pETDuet-*sigT-nepRFL*	Used to coexpress His-σT with NepR.
		This work	FC2350	*E. coli* Rosetta (DE3) pLysS	pETDuet-*sigT-nepRFL*	
		This work	FC2351	*E. coli Top10*	pETDuet-*sigT-nepRSV*	Used to coexpress His-σT with NepRsv.
		This work	FC2352	*E. coli* Rosetta (DE3) pLysS	pETDuet-*sigT-nepRSV*	
		This work	FC2357	*E. coli Top10*	pETDuet-*sigT-MBPnepRFL*	Used to coexpress His-σT with MBP-NepR.
		This work	FC2358	E. coli Rosetta (DE3) pLysS	pETDuet-*sigT-MBPnepRFL*	
		This work	FC2359	*E. coli Top10*	pETDuet-*sigT-MBPnepRSV*	Used to coexpress His-σT with MBP-NepRsv.
		This work	FC2360	*E. coli Rosetta (DE3) pLysS*	pETDuet-*sigT-MBPnepRSV*	
		This work	FC2364	*E. coli Top10*	pETDuet-*sigT-MBP*	Used to coexpress His-σT with MBP.
		This work	FC2365	E. coli Rosetta (DE3) pLysS	pETDuet-*sigT-MBP*	
SPR and phosphorylation experiments	5 and S5	New England Biolabs	FC1522	*E. coli* Rosetta (DE3) pLysS	pMalc2g	Empty vector (AmpR). Used to overexpress MBP tagged proteins for SPR and phosphorylation experiments.
		Herrou et al., 2012	FC1524	*E. coli* Rosetta (DE3) pLysS	pMalc2g-*nepRFL*	Used to overexpress MBP-NepR for SPR and phosphorylation experiments.
		This work	FC2245	*E. coli Top10*	pMalc2g-*nepRSV*	
		This work	FC2246	*E. coli* Rosetta (DE3) pLysS	pMalc2g-*nepRSV*	
		Novagen	FC155	*E. coli* Top10	pET28c	Empty plasmid (KanR).
		Herrou et al., 2010	FC1536	*E. coli* Rosetta (DE3) pLysS	pET28c-*phyR*	Used to overexpress His tagged PhyR versions for SPR and phosphorylation experiments.
		Herrou et al., 2012	FC1546	*E. coli* Rosetta (DE3) pLysS	pET28c-*phyR-SL*	
		This work	FC2361	*E. coli Top10*	pET28c-*phyR(D192A)*	Used to overexpress His tagged PhyR(D192) mutant protein for phosphorylation assay.
		This work	FC2361	*E. coli Rosetta (DE3) pLysS*	pET28c-*phyR(D192A)*	